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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,082	02/05/2004	Shigeaki Sasaki	D3301-00131	6034

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EXAMINER

HUNNINGS, TRAVIS R

ART UNIT PAPER NUMBER

2632

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,082

Applicant(s)

SASAKI ET AL.

Examiner

Travis R. Hunnings

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.
2. The disclosure is objected to because of the following informalities: page 1, line 17 the number "18" should be changed to "16" and page 18, line 12 the phrase "step 9" should be changed to "step S9".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Activ8 (Activ8 Three On User's Guide and Activ8 Three Technical Specification Sheet).

Regarding claim 1, Activ8 discloses the following claimed limitations:

The claimed radio-wave transmitter-receiver section forming a radio-wave detection zone for detecting an object at a location remote from said door is met by the radar motion sensing field (Activ8 User's Manual page 2);

The claimed light emitter-receiver section for forming an optical detection zone for detecting an object at a location along and closer to said door is met by the IR presence sensing field (Activ8 User's Manual page 3);

The claimed light emitter-receiver section including optical detection zone modifying means which increases or decreases a depth dimension of said optical detection zone in a direction perpendicular to said door is met by the IR presence sensing field adjustment depth (Activ8 User's Manual page 3).

Regarding claim 8, Activ8 discloses the following claimed limitations:

The claimed sensor including invalidating means for making a result of detection in said second detection zone invalid when an environmental condition around said door affects said result of detection in said second detection zone is met by the presence detection in the IR presence detection zone being disturbed by the rain and therefore not detecting the presence of an object in the zone due to the rain (Activ8 User's Manual page 7).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Activ8.

Regarding claim 3, the claimed sensor including invalidating means for making a result of detection in said second detection zone invalid when said door is in a closed position thereof would have been obvious to one of ordinary skill in the art because the door would be opened by a presence detected by the radar motion sensing field and would continue to stay open while a presence is detected in the IR presence sensing field but if no presence was detected in the radar field then the door would be closed and if a presence was then detected by the IR field the device would not open the door because there was no presence detected by the radar field.

Regarding claim 4, the claimed sensor including validating means for making a result of detection in said second detection zone valid when an object is detected in said first detection zone would have been obvious to one of ordinary skill in the art because it

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is obvious that the door should be opened when both fields detect a presence and therefore determine that someone is approaching the door with the desire to enter.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Activ8 in view of Chasek (US Patent 4,317,117).

Regarding claim 2, Activ8 discloses all of the claimed limitations except for the claimed optical detection zone modifying means comprising reflecting means for reflecting light beams emitted by said light emitter-receiver section and light-collecting means for collecting light beams to be received by said light emitter-receiver section, said reflecting means and said light-collecting means collaborating to increase or decrease the depth dimension of said optical detection zone. Chasek discloses *Cross Correlated Doppler Radar/Infra Red Velocity And Presence Sensor* that teaches using a parabolic reflector for infrared energy for adjusting the transmission and reception of the infrared sensor (column 1, lines 44-49). Modifying the Activ8 device to include a parabolic reflector would increase the ability of the device to adjust the detection field and therefore provide a greater range of detection. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Activ8 according to the teachings of Chasek to include a parabolic reflector to allow the device to adjust the light emitter and receiver.

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8. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Activ8 in view of Kornbrekke et al. (Kornbrekke; US Patent 4,967,083).

Regarding claim 5, Activ8 discloses all of the claimed limitation except for the claimed validating means makes said result of detection in said second detection zone valid when an object is detected in said first detection zone continuously for a first time period. Kornbrekke discloses *Door Sensor System* that teaches sensors that include a time delay after presence is first detected before a valid detection signal is initiated (column 7, lines 3-16). Modifying the Activ8 device to include a delay before a valid signal is determined would decrease the amount of false alarms due to random presences being detected for short periods of time. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Activ8 according to the teachings of Kornbrekke to include a time delay before a presence detection is determined to be valid.

Regarding claim 6, Activ8 discloses all of the claimed limitations except for the claimed validating means makes said result of detection in said second detection zone valid for a second time period when an object is detected in said first detection zone. Kornbrekke teaches a "hold open" time delay which keeps the validity of a detection signal valid for a certain period of time (column 2, lines 43-54). Modifying the Activ8 device to include a "hold open" time delay in order to allow the device to keep active the presence signal would allow users more time to move towards the door in case they

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were slow or were having trouble moving towards the door. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Activ8 according to the teachings of Kornbrekke to include a time period that would allow the detection to remain valid after a presence is detected.

Regarding claim 7, the claim is interpreted and rejected as claim 5 stated above. The claimed means being operable to detect the presence for a third period of time in the second detection zone would be the same as in the first detection zone and adding it to the second detection zone either alone or together would also decrease the rate of false alarms.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Scoville et al. *Automatic Door Operator*, US Patent 3,852,592 ;

Gionet et al. *Automatic Door Object Sensing System*, US Patent 4,577,437;

Boiucaner, *Sliding Door Sensor*, US Patent 5,142,152.

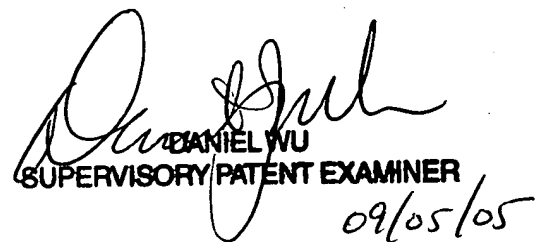
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R. Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH


DANIEL WU
SUPERVISORY PATENT EXAMINER
09/05/05